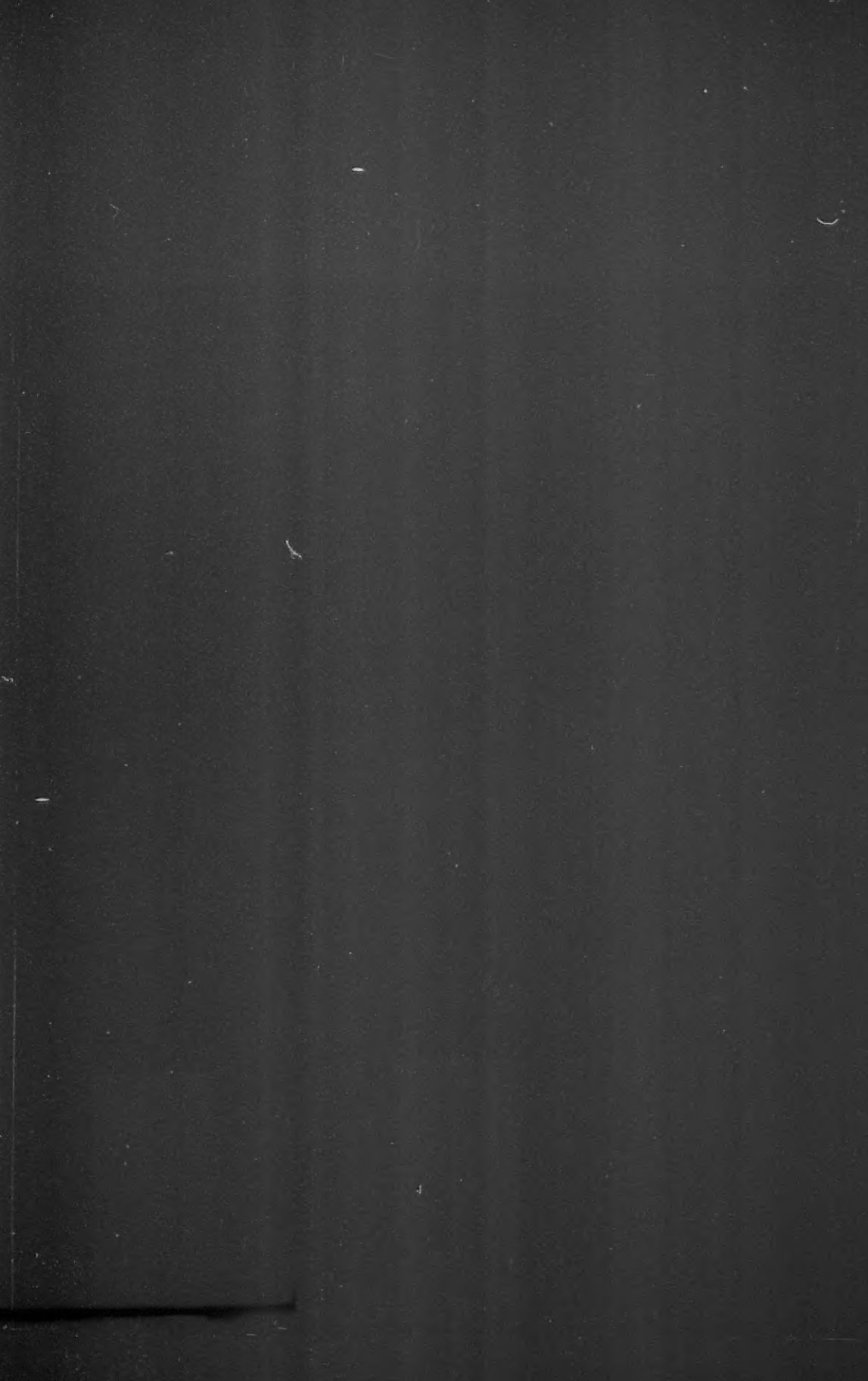


- Ameur, Y., Hedenmalm, H., and Makarov, N.: Berezin Transform in Polynomial Bergman Spaces, 1533
- Andersen, J. E.: see Penner, R. C.
- Andersson, L., Beig, R., and Schmidt, B. G.: Rotating Elastic Bodies in Einstein Gravity, 559
- Baik, J., Ferrari, P. L., and Peché, S.: Limit Process of Stationary TASEP near the Characteristic Line, 1017
- Bardos, C., Linshiz, J. S., and Titi, E. S.: Global Regularity and Convergence of a Birkhoff-Rott- $\alpha$  Approximation of the Dynamics of Vortex Sheets of the Two-Dimensional Euler Equations, 697
- Barreira, L., Llibre, J., and Valls, C.: Periodic Orbits near Equilibria, 1225
- Beig, R.: see Andersson, L.
- Biello, J., and Hunter, J. K.: Nonlinear Hamiltonian Waves with Constant Frequency and Surface Waves on Vorticity Discontinuities, 303
- Bleher, P. M., and Liechty, K.: Exact Solution of the Six-Vertex Model with Domain Wall Boundary Conditions: Antiferroelectric Phase, 779
- Borodin, A., and Kuan, J.: Random Surface Growth with a Wall and Plancherel Measures for  $O(\infty)$ , 831
- Bou-Rabee, N., and Vanden-Eijnden, E.: Pathwise Accuracy and Ergodicity of Metropolized Integrators for SDEs, 655
- Bray, H., Brendle, S., Eichmair, M., and Neves, A.: Area-Minimizing Projective Planes in 3-Manifolds, 1237
- Brendle, S.: see Bray, H.
- Cabré, X.: Regularity of Minimizers of Semilinear Elliptic Problems Up to Dimension 4, 1362
- Caffarelli, L., Roquejoffre, J.-M., and Savin, O.: Nonlocal Minimal Surfaces, 1111
- Cannarsa, P., and Cardaliaguet, P.: Holder Estimates in Space-Time for Viscosity Solutions of Hamilton-Jacobi Equations, 590
- Cannone, M., and Karch, G.: Infinite Energy Solutions to the Homogeneous Boltzmann Equation, 747
- Cantero, M. J., Grünbaum, F. A., Moral, L., and Velázquez, L.: Matrix-Valued Szegő Polynomials and Quantum Random Walks, 464
- Cappell, S. E., and Miller, E. Y.: Complex-Valued Analytic Torsion for Flat Bundles and for Holomorphic Bundles with (1,1) Connections, 133
- Cardaliaguet, P.: see Cannarsa, P.
- Chen, G.-Q., and Perepelitsa, M.: Vanishing Viscosity Limit of the Navier-Stokes Equations to the Euler Equations for Compressible Fluid Flow, 1469
- Chen, Q., Miao, C., and Zhang, Z.: Global Well-Posedness for Compressible Navier-Stokes Equations with Highly Oscillating Initial Velocity, 1173
- Chumakova, L., and Tabak, E. G.: Simple Waves Do Not Avoid Eigenvalue Crossings, 119
- Claeys, T., and Grava, T.: Painlevé II Asymptotics near the Leading Edge of the Oscillatory Zone for the Korteweg-de Vries Equation in the Small-Dispersion Limit, 203
- Claeys, T., Its, A., and Krasovsky, I.: Higher-Order Analogues of the Tracy-Widom Distribution and the Painlevé II Hierarchy, 362
- Constantin, A., and Strauss, W.: Pressure Beneath a Stokes Wave, 533
- Daubechies, I., DeVore, R., Fornasier, M., and Güntürk, C. S.: Iteratively Reweighted Least Squares Minimization for Sparse Recovery, I
- DeVore, R.: see Daubechies, I.
- E, W., and Lu, J.: Electronic Structure of Smoothly Deformed Crystals: Cauchy-Born Rule for the Nonlinear Tight-Binding Model, 1432
- Eichmair, M.: see Bray, H.
- Epstein, C. L., and Greengard, L.: Debye Sources and the Numerical Solution of the Time Harmonic Maxwell Equations, 413
- Erdős, L., Peché, S., Ramírez, J. A., Schlein, B., and Yau, H.-T.: Bulk Universality for Wigner Matrices, 895
- Ferrari, P. L.: see Baik, J.
- Fornasier, M.: see Daubechies, I.
- Giacomin, G., Lacoïn, H., and Toninelli, E.: Marginal Relevance of Disorder for Pinning Models, 233
- Grava, T.: see Claeys, T.
- Greengard, L.: see Epstein, C. L.
- Grünbaum, F. A.: see Cantero, M. J.
- Güntürk, C. S.: see Daubechies, I.
- Guo, Y., Jang, J., and Jiang, N.: Acoustic Limit for the Boltzmann Equation in Optimal Scaling, 337

- Hedenmalm, H.: see Ameur, Y.
- Hilário, M. R., Louidor, O., Newman, C. M., Rolla, L. T., Sheffield, S., and Sidoravicius, V.: Fixation for Distributed Clustering Processes, 926
- Hunter, J. K.: see Biello, J.
- Ignat, R., and Knüpfer, H.: Vortex Energy and  $360^\circ$  Néel Walls in Thin-Film Micromagnetics, 1677
- Inoue, R., Vanhaecke, P., and Yamazaki, T.: Singular Fiber of the Mumford System and Rational Solutions to the KdV Hierarchy, 508
- Its, A.: see Claeys, T.
- Jang, J.: see Guo, Y.
- Jiang, N.: see Guo, Y.
- Karch, G.: see Cannone, M.
- Knudsen, M.: see Penner, R. C.
- Knüpfer, H.: see Ignat, R.
- Kohn, R. V., Onofrei, D., Vogelius, M. S., and Weinstein, M. I.: Cloaking via Change of Variables for the Helmholtz Equation, 973
- Kohn, R. V., Onofrei, D., Vogelius, M. S., and Weinstein, M. I.: Erratum: Cloaking via Change of Variables for the Helmholtz Equation, 1525
- Kohn, R. V., and Serfaty, S.: A Deterministic-Control-Based Approach to Fully Nonlinear Parabolic and Elliptic Equations, 1298
- Krasovskiy, I.: see Claeys, T.
- Kuan, J.: see Borodin, A.
- Lacoin, H.: see Giacomini, G.
- Larsen, C. J.: Epsilon-Stable Quasi-Static Brittle Fracture Evolution, 630
- Liechty, K.: see Bleher, P. M.
- Lin, F., and Wei, J.: Traveling Wave Solutions of the Schrödinger Map Equation, 1585
- Linshiz, J. S.: see Bardos, C.
- Liu, J., and Yuan, X.: Spectrum for Quantum Duffing Oscillator and Small-Divisor Equation with Large-Variable Coefficient, 1145
- Libre, J.: see Barreira, L.
- Louidor, O.: see Hilário, M. R.
- Lu, J.: see E, W.
- Ma, X.-N., Ou, Q., and Zhang, W.: Gaussian Curvature Estimates for the Convex Level Sets of  $p$ -Harmonic Functions, 935
- Majda, A. J., and Souganidis, P. E.: Existence and Uniqueness of Weak Solutions for Precipitation Fronts: A Novel Hyperbolic Free Boundary Problem in Several Space Variables, 1351
- Makarov, N.: see Ameur, Y.
- Miao, C.: see Chen, Q.
- Miller, E. Y.: see Cappell, S. E.
- Moral, L.: see Cantero, M. J.
- Neves, A.: see Bray, H.
- Newman, C. M.: see Hilário, M. R.
- Nguyen, H.-M.: Cloaking via Change of Variables for the Helmholtz Equation in the Whole Space, 1505
- Noris, B., Tavares, H., Terracini, S., and Verzini, G.: Uniform Holder Bounds for Nonlinear Schrödinger Systems with Strong Competition, 267
- Onofrei, D.: see Kohn, R. V.
- Ou, Q.: see Ma, X.-N.
- Péché, S.: see Baik, J.
- Péché, S.: see Erdős, L.
- Penner, R. C., Knudsen, M., Wiuf, C., and Andersen, J. E.: Fatgraph Models of Proteins, 1249
- Perepelitsa, M.: see Chen, G.-Q.
- Ramirez, J. A.: see Erdős, L.
- Rolla, L. T.: see Hilário, M. R.
- Roquejoffre, J.-M.: see Caffarelli, L.
- Savin, O.: see Caffarelli, L.
- Schlein, B.: see Erdős, L.
- Schmidt, B. G.: see Andersson, L.
- Serfaty, S.: see Kohn, R. V.
- Sheffield, S.: see Hilário, M. R.
- Sidoravicius, V.: see Hilário, M. R.
- Solovej, J. P., Sørensen, T. Ø., and Spitzer, W. L.: Relativistic Scott Correction for Atoms and Molecules, 39
- Sørensen, T. Ø.: see Solovej, J. P.
- Souganidis, P. E.: see Majda, A. J.
- Spitzer, W. L.: see Solovej, J. P.
- Strauss, W.: see Constantin, A.
- Tabak, E. G.: see Chumakova, L.
- Tavares, H.: see Noris, B.
- Terracini, S.: see Noris, B.
- Tice, I.: Ginzburg-Landau Vortex Dynamics Driven by an Applied Boundary Current, 1622
- Titi, E. S.: see Bardos, C.
- Toninelli, F.: see Giacomini, G.
- Valls, C.: see Barreira, L.
- Vanden-Eijnden, E.: see Bou-Rabee, N.
- Vanhaecke, P.: see Inoue, R.
- Velázquez, L.: see Cantero, M. J.
- Verzini, G.: see Noris, B.
- Vogelius, M. S.: see Kohn, R. V.
- Weber, H.: Sharp Interface Limit for Invariant Measures of a Stochastic Allen-Cahn Equation, 1071
- Wei, J.: see Lin, F.
- Weinstein, M. I.: see Kohn, R. V.
- Wiuf, C.: see Penner, R. C.
- Xiang, K.-N.: An Explicit Schilder-Type Theorem for Super-Brownian Motions, 1381
- Yamazaki, T.: see Inoue, R.
- Yau, H.-T.: see Erdős, L.
- Yuan, X.: see Liu, J.
- Zhang, W.: see Ma, X.-N.
- Zhang, Z.: see Chen, Q.





---

Contents of Volume LXIII, Nos. 1–12, 2010

---

NUMBER 1, JANUARY

Iteratively Reweighted Least Squares Minimization for Sparse Recovery <i>I. Daubechies, R. DeVore, M. Fornasier, and C. S. Güntürk</i> .....	1
Relativistic Scott Correction for Atoms and Molecules <i>J. P. Solovej, T. Ø. Sørensen, and W. L. Spitzer</i> .....	39
Simple Waves Do Not Avoid Eigenvalue Crossings <i>L. Chumakova and E. G. Tabak</i> .....	119

NUMBER 2, FEBRUARY

Complex-Valued Analytic Torsion for Flat Bundles and for Holomorphic Bundles with (1,1) Connections <i>S. E. Cappell and E. Y. Miller</i> .....	133
Painlevé II Asymptotics near the Leading Edge of the Oscillatory Zone for the Korteweg–de Vries Equation in the Small-Dispersion Limit <i>T. Claeys and T. Grava</i> .....	203
Marginal Relevance of Disorder for Pinning Models <i>G. Giacomin, H. Lacoin, and F. Toninelli</i> .....	233

NUMBER 3, MARCH

Uniform Hölder Bounds for Nonlinear Schrödinger Systems with Strong Competition <i>B. Noris, H. Tavares, S. Terracini, and G. Verzini</i> .....	267
Nonlinear Hamiltonian Waves with Constant Frequency and Surface Waves on Vorticity Discontinuities <i>J. Biello and J. K. Hunter</i> .....	303
Acoustic Limit for the Boltzmann Equation in Optimal Scaling <i>Y. Guo, J. Jang, and N. Jiang</i> .....	337
Higher-Order Analogues of the Tracy-Widom Distribution and the Painlevé II Hierarchy <i>T. Claeys, A. Its, and I. Krasovskiy</i> .....	362

## NUMBER 4, APRIL

Debye Sources and the Numerical Solution of the Time Harmonic Maxwell Equations <i>C. L. Epstein and L. Greengard</i> .....	413
Matrix-Valued Szegő Polynomials and Quantum Random Walks <i>M. J. Cantero, F. A. Grünbaum, L. Moral, and L. Velázquez</i> .....	464
Singular Fiber of the Mumford System and Rational Solutions to the KdV Hierarchy <i>R. Inoue, P. Vanhaecke, and T. Yamazaki</i> .....	508
Pressure Beneath a Stokes Wave <i>A. Constantin and W. Strauss</i> .....	533

## NUMBER 5, MAY

Rotating Elastic Bodies in Einstein Gravity <i>L. Andersson, R. Beig, and B. G. Schmidt</i> .....	559
Hölder Estimates in Space-Time for Viscosity Solutions of Hamilton-Jacobi Equations <i>P. Cannarsa and P. Cardaliaguet</i> .....	590
Epsilon-Stable Quasi-Static Brittle Fracture Evolution <i>C. J. Larsen</i> .....	630
Pathwise Accuracy and Ergodicity of Metropolized Integrators for SDEs <i>N. Bou-Rabee and E. Vanden-Eijnden</i> .....	655

## NUMBER 6, JUNE

Global Regularity and Convergence of a Birkhoff-Rott- $\alpha$ Approximation of the Dynamics of Vortex Sheets of the Two-Dimensional Euler Equations <i>C. Bardos, J. S. Linshiz, and E. S. Titi</i> .....	697
Infinite Energy Solutions to the Homogeneous Boltzmann Equation <i>M. Cannone and G. Karch</i> .....	747
Exact Solution of the Six-Vortex Model with Domain Wall Boundary Conditions: Antiferroelectric Phase <i>P. M. Bleher and K. Liechty</i> .....	779

## NUMBER 7, JULY

Random Surface Growth with a Wall and Plancherel Measures for $O(\infty)$ <i>A. Borodin and J. Kuan</i> .....	831
Bulk Universality for Wigner Matrices <i>L. Erdős, S. Péché, J. A. Ramírez, B. Schlein, and H.-T. Yau</i> .....	895

Fixation for Distributed Clustering Processes M. R. Hilário, O. Louidor, C. M. Newman, L. T. Rolla, S. Sheffield, and V. Sidoravicius	926
Gaussian Curvature Estimates for the Convex Level Sets of $p$ -Harmonic Functions X.-N. Ma, Q. Ou, and W. Zhang	935

## NUMBER 8, AUGUST

Cloaking via Change of Variables for the Helmholtz Equation R. V. Kohn, D. Onofrei, M. S. Vogelius, and M. I. Weinstein	973
Limit Process of Stationary TASEP near the Characteristic Line J. Baik, P. L. Ferrari, and S. Péché	1017
Sharp Interface Limit for Invariant Measures of a Stochastic Allen-Cahn Equation H. Weber	1071

## NUMBER 9, SEPTEMBER

Nonlocal Minimal Surfaces L. Caffarelli, J.-M. Roquejoffre, and O. Savin	1111
Spectrum for Quantum Duffing Oscillator and Small-Divisor Equation with Large-Variable Coefficient J. Liu and X. Yuan	1145
Global Well-Posedness for Compressible Navier-Stokes Equations with Highly Oscillating Initial Velocity Q. Chen, C. Miao, and Z. Zhang	1173
Periodic Orbits near Equilibria L. Barreira, J. Llibre, and C. Valls	1225
Area-Minimizing Projective Planes in 3-Manifolds H. Bray, S. Brendle, M. Eichmair, and A. Neves	1237

## NUMBER 10, OCTOBER

Fatgraph Models of Proteins R. C. Penner, M. Knudsen, C. Wiuf, and J. E. Andersen	1249
A Deterministic-Control-Based Approach to Fully Nonlinear Parabolic and Elliptic Equations R. V. Kohn and S. Serfaty	1298
Existence and Uniqueness of Weak Solutions for Precipitation Fronts: A Novel Hyperbolic Free Boundary Problem in Several Space Variables A. J. Majda and P. E. Souganidis	1351
Regularity of Minimizers of Semilinear Elliptic Problems Up to Dimension 4 X. Cabré	1362



## NUMBER 11, NOVEMBER

An Explicit Schilder-Type Theorem for Super-Brownian Motions <i>K.-N. Xiang</i> .....	1381
Electronic Structure of Smoothly Deformed Crystals: Cauchy-Born Rule for the Nonlinear Tight-Binding Model <i>W. E and J. Lu</i> .....	1432
Vanishing Viscosity Limit of the Navier-Stokes Equations to the Euler Equations for Compressible Fluid Flow <i>G.-Q. Chen and M. Perepelitsa</i> .....	1469
Cloaking via Change of Variables for the Helmholtz Equation in the Whole Space <i>H.-M. Nguyen</i> .....	1505
Erratum: Cloaking via Change of Variables for the Helmholtz Equation <i>R. V. Kohn, D. Onofrei, M. S. Vogelius, and M. I. Weinstein</i> .....	1525

## NUMBER 12, DECEMBER

Berezin Transform in Polynomial Bergman Spaces <i>Y. Ameur, H. Hedenmalm, and N. Makarov</i> .....	1533
Traveling Wave Solutions of the Schrödinger Map Equation <i>F. Lin and J. Wei</i> .....	1585
Ginzburg-Landau Vortex Dynamics Driven by an Applied Boundary Current <i>I. Tice</i> .....	1622
Vortex Energy and 360° Néel Walls in Thin-Film Micromagnetics <i>R. Ignat and H. Knüpfer</i> .....	1677
Author Index .....	1725
Volume Contents .....	I



